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A

MANUAL OF DYEING :

FOR THE USE OF PRACTICAL DYERS, MANUFACTURERS,
STUDENTS, AND ALL INTERESTED IN THE
ART OF DYEING.

BY

EDMUND KNECHT,

PH.D., F.I.C.,

HEAD OF THE CHEMISTRY AND DYEING DEPARTMENT OF
THE MUNICIPAL TECHNICAL SCHOOL, MANCHESTER :

EDITOR OF *The Journal of the Society of
Dyers and Colourists* :

CHRISTOPHER RAWSON,

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LATE HEAD OF THE CHEMISTRY AND DYEING DEPARTMENT
OF THE TECHNICAL COLLEGE, BRADFORD ; MEMBER

OF COUNCIL OF THE SOCIETY OF DYERS
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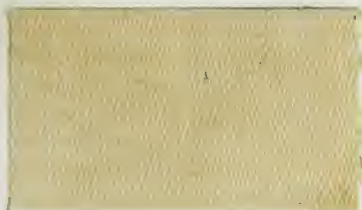
1893.

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PATTERN SHEET No. 1—COTTON.

No. 1.

Grey cloth.



No. 2.

Cloth after boiling with alkali.



No. 3.

Bleached cloth.



No. 4.

Benzopurpurin 4 B dyed on grey cloth, with
10 per cent. phosphate of soda.
3 per cent. soap.



(410—416)

No. 5.

Benzopurpurin 4 B dyed on bleached cloth, with
10 per cent. phosphate of soda.
3 per cent. soap.



(410—416)

No. 6.

Benzopurpurin 4 B dyed on mercerised cloth, with
10 per cent. phosphate of soda.
3 per cent. soap.



(410—416)

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PATTERN SHEET No. 2—COTTON.

No. 7.

Dianthine, with $\frac{1}{3}$ of its weight of caustic soda.
(2 lbs. of lime and 7 lbs. of salt per 100 gallons).



(424)

No. 8.

Erika B.
10 per cent. phosphate of soda.
3 per cent. soap.



(422)

No. 9.

Mikado orange G.
20 per cent. common salt.



(426)

No. 10.

Toluylene orange G.
10 per cent. phosphate of soda.
3 per cent. soap.



(425)

No. 11.

Chrysamin G.
10 per cent. phosphate of soda.
3 per cent. soap.



(426)

No. 12.

Cresotin yellow G.
10 per cent. phosphate of soda.
3 per cent. soap.



(427)

PATTERN SHEET No. 3—COTTON.

No. 13.

Primuline.
20 per cent. common salt.



(431)

No. 14.

Shade No. 13, diazotised and developed
with an alkaline solution of beta-
naphthol.



(431)

No. 15.

Brilliant sulphonazurin G.
10 per cent. phosphate of soda.
3 per cent. soap.



No. 17.

Diamine violet N.
10 per cent. phosphate of soda.
3 per cent. soap.



(440)

No. 16.

Diamine sky blue.
20 per cent. common salt.



No. 18.

Benzo grey.
20 per cent. common salt.



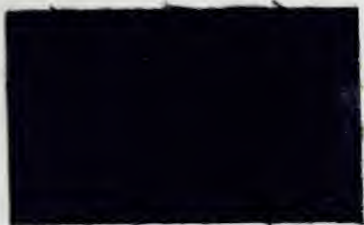
(444)



PATTERN SHEET No. 4—COTTON.

No. 19.

Diamine black B H.
15 per cent. sodium sulphate.
5 per cent. sodium carbonate.



(445)

No. 20.

Shade No. 19, diazotised and developed
with phenylene-diamine.



(446)

No. 21.

Toluylene brown R.
10 per cent. phosphate of soda.
3 per cent. soap.



(441)

No. 22.

Chrysamin G } equal
Brilliant sul- } parts.
phonazarin }
10 per cent. phosphate of soda.
3 per cent. soap.



No. 23.

Benzopurpurin 4 B } equal
Chrysamin G } parts.
10 per cent. phosphate of soda.
3 per cent. soap.



No. 24.

Chrysamin G.
topped with Methylene blue B.



(411)



PATTERN SHEET No. 5—COTTON.

No. 25.

Mordant: Tannic acid and tartar emetic.
Dye: 1 per cent. Magenta.



(459)

No. 26.

Mordant: Tannic acid and tartar emetic.
Dye: 1 per cent. Safranine.



(464)

No. 27.

Mordant: Tannic acid and tartar emetic.
Dye: 2 per cent. Acridine orange.



(468)

No. 28.

Mordant: Tannic acid and tartar emetic.
Dye: 2 per cent. Auramine.



(470)

No. 29.

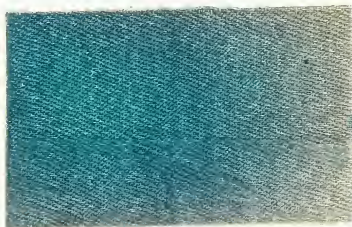
Mordant: Tannic acid and tartar emetic.
Dye: 2 per cent. Thioflavine T.



(471)

No. 30.

Mordant: Tannic acid and tartar emetic.
Dye: 1 per cent. Brilliant green.



(476)



PATTERN SHEET No. 6—COTTON.

No. 31.

Mordant: Tannic acid and tartar emetic.
Dye: 1 per cent. Methylene blue B.



(482)

No. 32.

Mordant: Tannic acid and pyrolignite of iron.

Dye: 1 per cent. Methylene blue B.



(482)

No. 33.

Mordant: Tannic acid and tartar emetic.
Dye: 1 per cent. Nile blue.



(486)

No. 34.

Mordant: Tannic acid and tartar emetic.
Dye: Metaphenylene blue.



(489)

No. 35.

Mordant: Tannic acid and tartar emetic.
Dye: Indoine blue.



No. 36.

Mordant: Tannic acid and tartar emetic.
Dye: 1 per cent. Methyl violet 3 B.



(494)

PATTERN SHEET No. 7—COTTON.

No. 37.

Turkey red
(Before oiling and steaming).



(587)

No. 38.

Turkey red
(After oiling and steaming).



(587)

No. 39.

Azo-maroon formed on the fibre.



(659)

No. 40.

Azo-red formed on the fibre.



(659)

No. 41.

Dinitrosoresorcin on iron mordant.



(641)

No. 42.

Cachou de Laval.



(665)

PATTERN SHEET No. 8—COTTON.

No. 43.

Turmeric.



(376)

No. 44.

Indigo
(Hyposulphite vat.)



(331)

No. 45.

Prussian Blue.



(672)

No. 46.

Logwood Black.



(346)

No. 47.

Cutch.



(400)

No. 48.

Aniline Black.



(645)

The figures in parentheses, under each pattern, refer to pages in the text where the colouring-matters used are described.

PATTERN SHEET No. 9—COTTON.

No. 49.

Diamine green dyed with sodium sulphate.



No. 50.

Mordant : Sumach and nitrate of iron.
Dye : Malachite green and Auramine.



No. 51.

Scarlet 3 R and Scarlet 7 B.



No. 52.

Scarlet 3 R and Scarlet G.



No. 53.

Mordant : Sumach and nitrate of iron.
Dye : Violet 3 B.



No. 54.

Mordant : Sumach and nitrate of iron.
Dye : Soluble blue.



PATTERN SHEET No. 10—COTTON.

No. 55.

Mordant: Sumach and tin spirits.
Dye: Magenta, saddened with nitrate
of iron.



No. 56.

Mordant: Myrabolans and ferrous
sulphate.
Dye: Chrysoidine and Bismarck
brown.



No. 57.

Mordant: Myrabolans and ferrous
sulphate.
Dye: Chrysoidine and Magenta.



No. 58.

Mordant: Myrabolans and ferrous
sulphate.
Dye: Chrysoidine and Auramine.



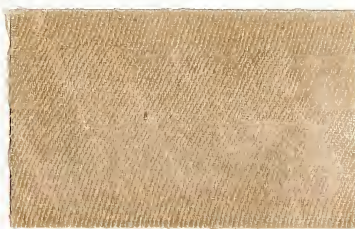
No. 59.

Erythrosin.



No. 60.

Chrysoidine and Auramine.



PATTERN SHEET No. 11—WOOL.

No. 61.

Scoured cloth
(as used for dyeing the following shades).



No. 62.

Stoved cloth.



No. 63.

Cochineal with tin mordant (single bath).



(394)

No. 64.

Cudbear dyed in acid bath.



(391)

No. 65.

Flavin with tin mordant (single bath).



(369)

No. 66.

Fustic on chrome mordant.



(365)

PATTERN SHEET No. 12—WOOL.

No. 67.

Indigo (woad vat).



(333)

No. 68.

Indigo carmine.



(338)

No. 69.

Logwood on chrome mordant.



(342)

No. 70.

Logwood on chrome mordant.



(342)

No. 71.

Logwood and fustic, on chrome mordant.



No. 72.

Logwood, fustic, and camwood on chrome mordant.



(383)

PATTERN SHEET No. 13—WOOL.

No. 73.

Scarlet 3 R.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(519)

No. 74.

Rhodamine B and Orange G.
2 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(565)

No. 75.

Crocein scarlet.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(521)

No. 76.

Fast red A.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(525)

No. 77.

Palatin red A.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



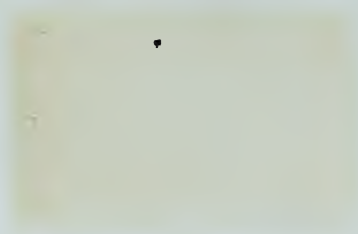
(527)

No. 78.

Azo-fuchsin B.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(530)



PATTERN SHEET No. 14—WOOL.

No. 79.

Azo-carmin.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(541)

No. 80.

Bordeaux B X.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(528)

No. 81.

Rose bengale.
5 per cent. acetic acid.



(560-564)

No. 82.

Orange G.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(517)

No. 83.

Tartrazin.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(541)

No. 84.

Azo-flavin.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(514)

PATTERN SHEET No. 15—WOOL.

No. 85.

Naphthol yellow S.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(511)

No. 86.

Light green S F.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(543)

No. 87.

Patent blue.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(549)

No. 88.

Thio-carmin R (paste).
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(550)

No. 89.

Acid violet 6 B N.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(553)

No. 90.

Wool blue.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(554)



PATTERN SHEET No. 16—WOOL.

No. 91.

Naphthol black 6 B.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(532)

No. 92.

Naphthol black 6 B.
 $\frac{1}{2}$ per cent. Tartrazin.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(532)

No. 93.

Victoria black B.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(536)

No. 94.

Naphthylamine Black 4 B.
5 per cent. acetic acid.



(534)

No. 95.

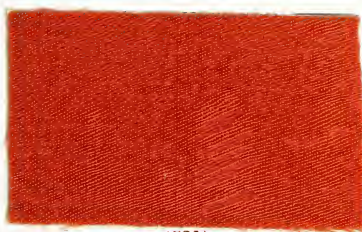
Anthracite black B.
2 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(535)

No. 96.

Acid brown.
3 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(531)

PATTERN SHEET No. 17—WOOL.

No. 97.

Magenta.



(457)

No. 98.

Cerise.



(461)

No. 99.

Alkali blue 4 B dyed in an alkaline bath, and developed with 4 per cent. sulphuric acid.



(545)

No. 100.

Indulin B.
2 per cent. sulphuric acid.
10 per cent. sodium sulphate.



(552)

No. 101.

Victoria blue B.
5 per cent. acetic acid.



(480)

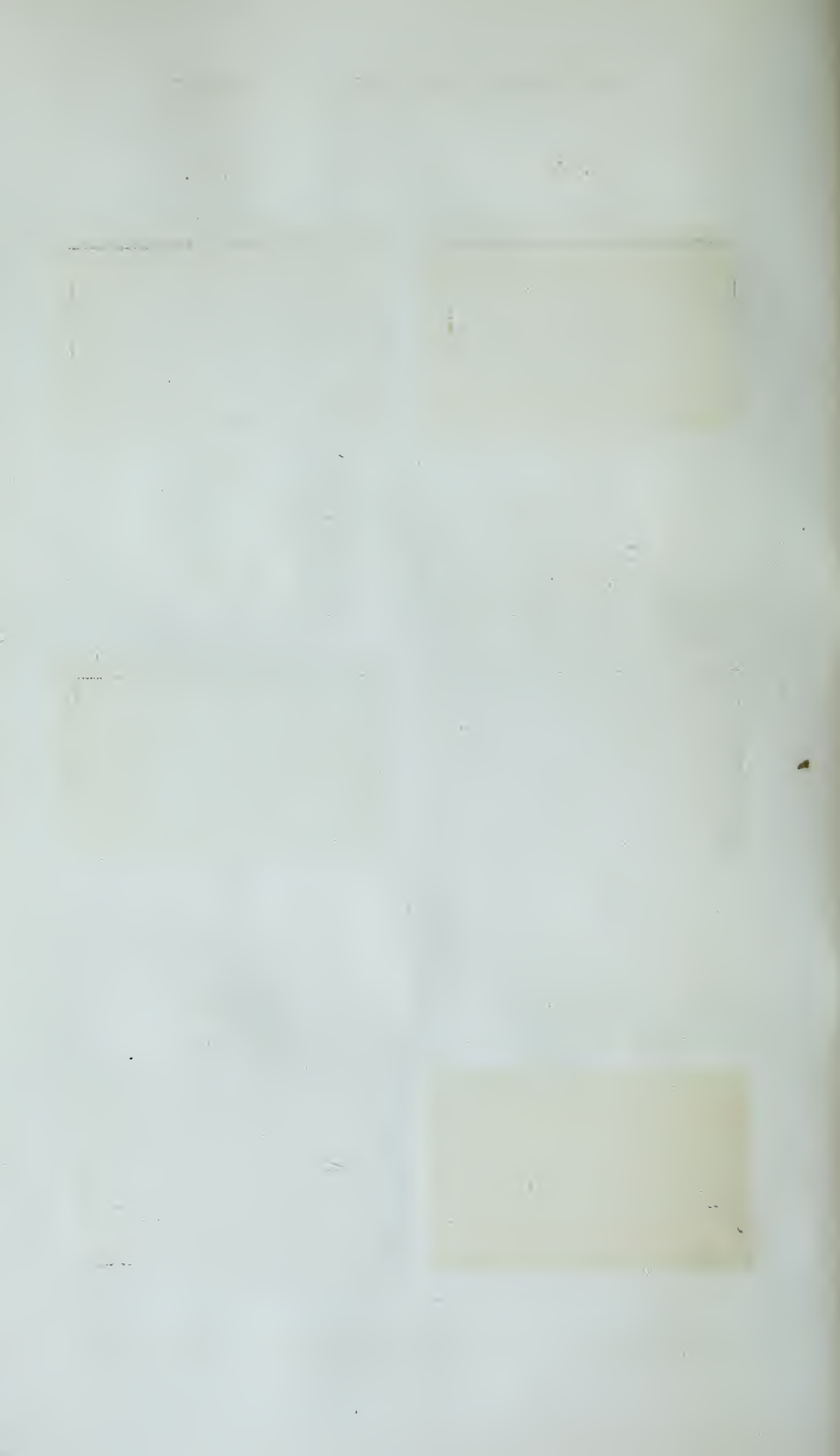
No. 102.

Victoria blue R.
5 per cent. acetic acid.



(481)

The figures in parentheses, under each pattern, refer to pages in the text where the colouring matters used are described.



PATTERN SHEET No. 18—WOOL.

No. 103.

Diamine scarlet B.



(418)

No. 104.

Diamine fast red.



(418)

No. 105.

Diamine scarlet } equal parts.
Chrysophenin }



(418 and 429)

No. 106.

Chrysamine G.



(426)

No 107.

Diamine gold.



No. 108.

Sulphonycyanin.



PATTERN SHEET No. 19—WOOL.

No. 109.

Alizarin red W.B. (paste) on chrome mordant.



(608)

No. 110.

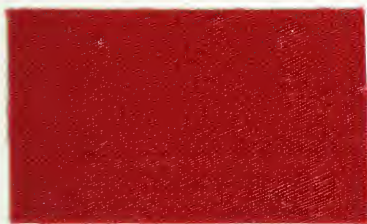
Cloth red G on chrome mordant.



(631)

No. 111.

Clayton cloth red on chrome mordant.



(634)

No. 112.

Alizarin orange W. (paste) on chrome mordant.



(616)

No. 113.

Emin red on chrome mordant.



No. 114.

Alizarin yellow G G W on chrome mordant.



(636)

PATTERN SHEET No. 20—WOOL.

No. 115.

Galloflavin (paste) on chrome mordant.



(627)

No. 116.

Fustin (paste) on chrome mordant.



(639)

No. 117.

Aurotin on chrome mordant.



(629)

No. 118.

Diamond yellow C on chrome mordant.



(638)

No. 119.

Gambin Y (paste) on chrome mordant.



(642)

No. 120.

Gambin Y (paste) on iron mordant.



(642)

The figures in parentheses, under each pattern, refer to pages in the text where the colouring-matters used are described.

PATTERN SHEET No. 21—WOOL.

No. 121.

Naphthol green.
5 per cent. ferrous sulphate.
2 per cent. sulphuric acid.



(644)

No. 122.

Cærulein S W (paste) on chrome
mordant.



(620)

No. 123.

Alizarin green S W (paste) on chrome
mordant.



(619)

No. 124.

Alizarin blue S R W (paste) on
chrome mordant.



(619)

No. 125.

Alizarin cyanin G G (paste) on chrome
mordant.



(615)

No. 126.

Alizarin cyanin G G (paste) on cloth
prepared with chromium fluoride
and oxalic acid.



(615)

PATTERN SHEET No. 22—WOOL.

No. 127.

Anthracene blue W G (paste) on
chrome mordant.



(615)

No 128.

Alizarin Bordeaux B (paste) on chrome
mordant.



(613)

No. 129.

Gallein (paste) on chrome mordant.



(622)

No. 130.

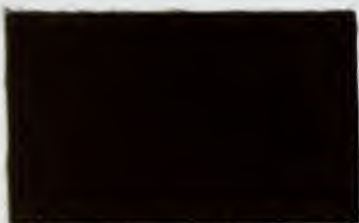
Gallocyanin B (paste) on chrome
mordant.



(623)

No. 131.

Anthracene brown W (paste) on
chrome mordant.



(612)

No. 132.

Alizarin black S W (paste) on chrome
mordant.



(630)

PATTERN SHEET No. 23—WOOL.

No. 133.

Azo-carmin and Naphthol yellow S in acid bath.



No. 134.

Acid violet in acid bath.



No. 135.

Archil substitute, Acid yellow, Azo-carmin, and indigo extract in acid bath.



No. 136.

Acid violet and indigo extract in acid bath.



No. 137.

Archil substitute, indigo extract, and Acid yellow in acid bath.



No. 138.

Patent blue and Acid violet in acid bath.



PATTERN SHEET No. 24- -WOOL.

No. 139.

Indigo extract, Acid magenta, Acid violet,
and Patent blue in acid bath.



No. 140.

Patent blue and indigo extract in acid
bath.



No. 141.

Indigo extract and Acid yellow in acid
bath.



No. 142.

Indigo extract, Acid yellow, and Archil
substitute in acid bath.



No. 143.

Scarlet 3 R, Fast red, Archil substitute
in acid bath.



No. 144.

Archil substitute, Acid magenta, indigo
extract, and Acid yellow in acid bath.



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